CLAIMS

1. A call set-up system, for the set-up of calls in a plurality of packet-switched networks connected to each other by network address translation (NAT) devices using a plurality of call agents, comprising means to send messages to successive call agents, which messages include address information for media packets within networks associated with the call agents, to define the media path of the call, at least some of the messages also including address information for media packets sent to preceding call agents involved in the set-up of the call.

2. A call set-up system as claimed in claim 1, in which at least some of the call agents are arranged to scan the call set-up messages received to ascertain if the address information includes entries for the associated network that were sent to a preceding call agent.

3. A call set-up system as claimed in claim 2, in which each such call agent is arranged to cause the address information to revert to the form produced by that preceding call agent, to enable the eventual media path to make a short-cut.

4. A call set-up system as claimed in claim 2 or claim 3, in which a media path opened through a NAT device for re-entry to a network is closed.

5. A call set-up system as claimed in any one of claims 1 to 4, in which at least some of the messages include session descriptions.

6. A call set-up system as claimed in any one of claims 1 to 4, in which at least some of the messages include encrypted address information.

7. A call set-up system as claimed in any one of claims 1 to 4, in which at least some of the messages include references to address information stored within the networks.

8. A call set-up system as claimed in any one of claims 1 to 4, in which at least some of the messages include the identifier of the network that the media packets are to traverse.

9. A call set-up system as claimed in claim 8, in which each network has a globally unique identifier.

10. A call set-up system as claimed in any one of claims 1 to 9, in which the call agents use an offer/answer protocol.

11. A call set-up system as claimed in claim 10, in which the offer/answer protocol is Session Initiation Protocol (SIP).

12. A call set-up system as claimed in claim 11, in which the address information for media packets sent to call agents is contained within a stack structure as a multipart attachment to the SIP message.

13. A call set-up system as claimed in claim 12, in which if the stack of messages contains an entry for the region being entered by the offer or answer message, the stack is scanned through until the deepest matching entry becomes the new session description.

14. A call set-up system as claimed in claim 13, in which any pinhole so opened in a NAT device into the region being entered by the offer or answer message is closed.

15. A call set-up as claimed in any one of claims 12 to 14, in which if a stack of messages has no entry for the region being left by the answer message, any pinhole in a NAT device opening into that region is closed.

16. A call set-up device as claimed in any one of claims 1 to 15, in which the call agents are arranged to control the NAT devices.

17. A call set-up system as claimed in any one of claims 1 to 16, in which the call agents are incorporated in the NAT devices.

18. A call set-up system as claimed in any one of claims 1 to 17, in which at least one of the networks is a 3G radio network.

19. A call set-up method for the set-up of calls in a plurality of packet-switched networks connected to each other by network address translation (NAT) devices using a plurality of call agents, which method comprises the step of sending messages to successive call agents, which messages include address information for media packets within networks associated with the call agents, to define the media path of the call, at least some of the messages also including address information for media packets sent to preceding call agents involved in the set-up of the call.